

IN THE SPECIFICATION:

Page 1, the fourth paragraph is amended as follows:

Other optical tools which can be used to manipulate small particles include, but are not limited to, optical vortices, optical bottles, optical rotators and light cages. An optical vortex, although similar in use to an optical tweezer, operates on ~~[[an]]~~ a different principle.

Page 2, the fifth paragraph, continuing to page 3, is amended as follows:

Using a single beam of laser light with a diffractive optical element to form a plurality of diffracted laser beams focused to form an array of optical traps is known in the art. U.S. Patent No. 6,055,106 issued to *Grier and Dufresne* describes arrays of optical traps. The *Grier and Dufresne* patent teaches the use of a dynamic optical element and a focusing lens to diffract the input light beam and generate an array of movable optical traps. The array of optical traps is formed from a single input beam by having an appropriate shape at the back aperture beam diameter. Specifically, ~~[[that]]~~ a gaussian TEM₀₀ input laser beam should have a beam diameter which substantially coincides with the diameter of the back aperture.

Page 3, the sixth full paragraph is amended as follows:

By patterning the phase of the input beam with the upstream phase patterning optical element the patterned input beam's cross section can be selected to have a substantially even intensity (FIG. 2) even near its periphery. The substantially even intensity of the patterned input beam can be transferred to each beamlet. Accordingly, the plurality of beams produced from the second phase patterning optical element can both have a beam width which

coincides with the back aperture of a focusing lens and generate optical traps with greater intensity at the periphery of the optical traps than those optical traps produced from unpatteredened input beams which have less intensity at [[there]] their periphery.

Page 4, the sixth paragraph is amended as follows:

FIG. 2 is a chart of the intensity of a modified gaussian beam with a square cross section.

Page 9, the fourth paragraph is amended as follows:

The imaging illumination 74 passes through the working area [[200]] 2000, along the optical axis of the focusing lens, forming an optical data stream 78 corresponding to the phase profile and location of one or more of the beamlets, derived from the location and position of a small particle contained by an optical trap.